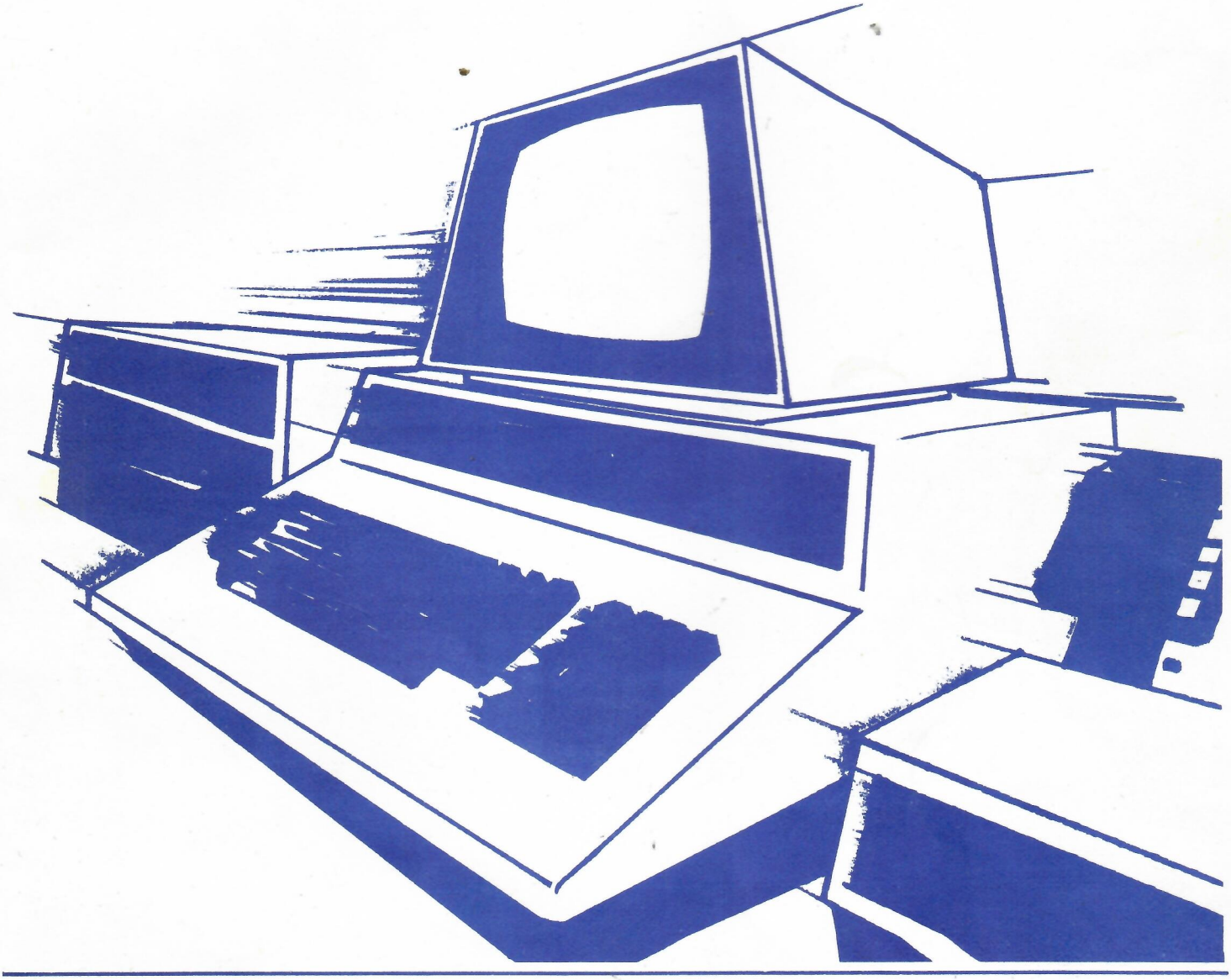
CPUCN

The Official Commodore Pet Users Club Newsletter



PET SHOW Special Edition

Volume 2
Issue 6

commodore

THREE GOOD REASONS YOU SHOULD READ COMPUTE. The Journal for Progressive Computing.™

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ONE GOOD REASON TO READ compute II.

The Single-Board COMPUTE.™

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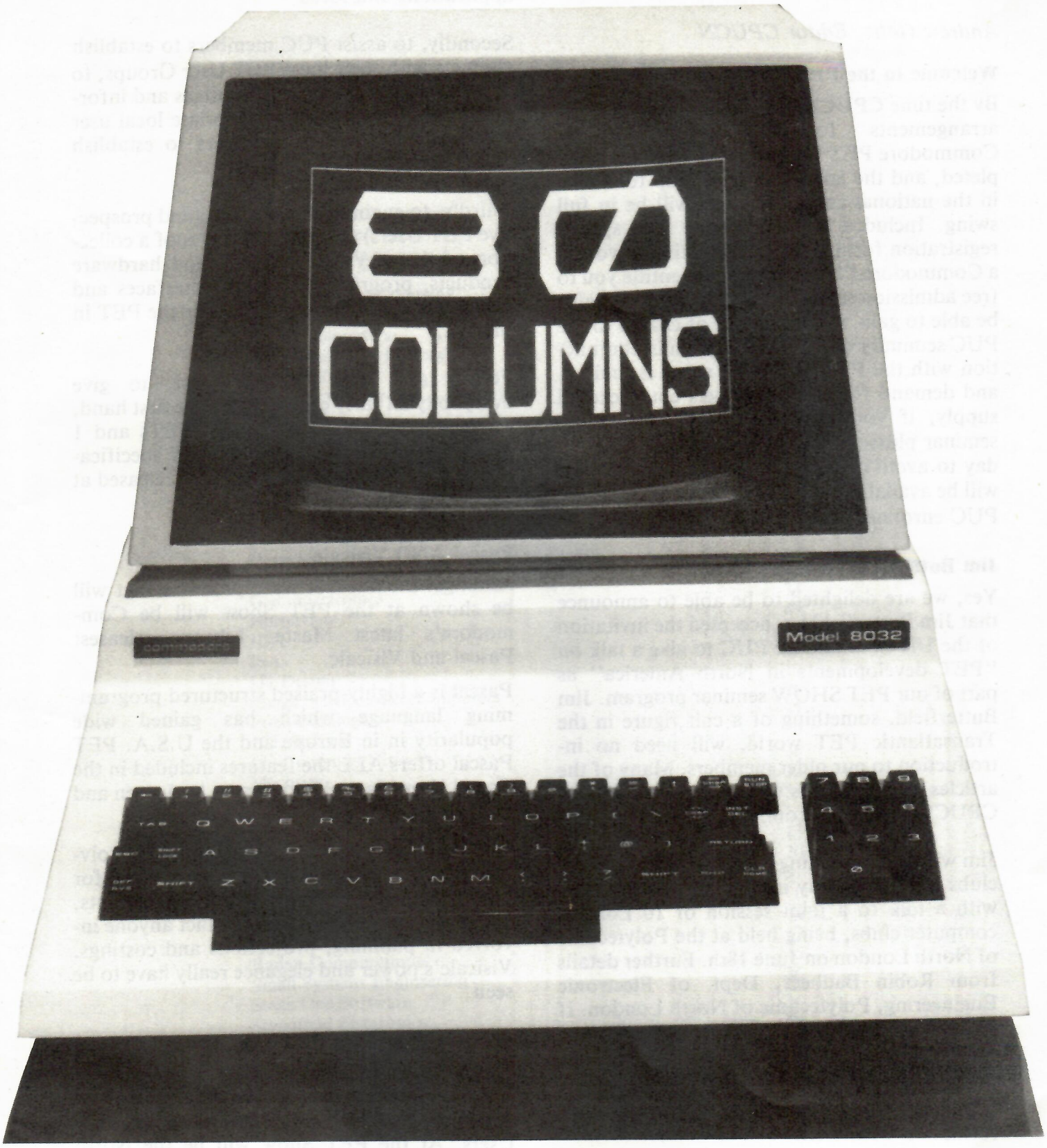
The 6502 Resources

COMPUTE. and compute II.

6 issue (annual, airmail) subscription: $22.50, U.S. funds only. Important Note: Beginning with Issue 4, **COMPUTE** covers Pet, Apple and Atari. The Single Board Computer Gazette has moved to our new magazine, **compute II. The Single-Board COMPUTE,** covering Sym, KIM, AIM, OSI and 1802 based machines. **6 issue (annual, airmail) subscription to compute II is also $22.50, U.S. funds.** You may subscribe directly or through **L.P. Enterprises, 8-11 Cambridge House, Cambridge Road, Barking, Essex, IG1 1BNT (01-591-6511).** (Contact them for price in £.) **Dealers should contact L.P. Enterprises directly. COMPUTE. P.O. Box 5406, Greensboro, N.C. 27403, (919) 272-4867.** Publications of Small System Services, Inc., 900-902 Spring Garden Street, Greensboro, N.C. 27403. U.S.



The 8032, an 80 column PET with business keyboard.

EDITORIAL

Andrew Goltz, Editor CPUCN

Welcome to the PET SHOW

By the time CPUCN 2.6 reaches you, the final arrangements for the World's First Commodore PET SHOW will have been completed, and the advertising build up for Show in the national computer press will be in full swing. Included with this issue is a special registration form which, by identifying you as a Commodore PUC Member will entitle you to free admission to the Show. Members will also be able to gain admission free of charge to the PUC seminars which are being run in conjunction with the PET Show. As space is limited, and demand for seminar tickets could exceed supply, if you wish to attend a particular seminar please obtain your tickets early in the day to avoid disappointment. Seminar tickets will be available (to PUC members only) at the PUC enrolment desk in the foyer.

Jim Butterfield comes to town!

Yes, we are delighted to be able to announce that Jim Butterfield has accepted the invitation of the UK Commodore PUC to give a talk on "PET developments in North America" as part of our PET SHOW seminar program. Jim Butterfield, something of a cult figure in the Transatlantic PET world, will need no introduction to our older members. Many of the articles and programs which have appeared in CPUCN have been contributed by him.

Jim will also be visiting a number of other user clubs during his stay in the UK, commencing with a talk to a joint session of 10 London computer clubs, being held at the Polytechnic of North London on June 18th. Further details from Robin Badbeer, Dept. of Electronic Engineering, Polytechnic of North London. If you are involved with a PET User Group and your group would like a chance to meet Jim Butterfield it may be possible for us to arrange this. Please contact me via the Commodore Information Centre (tel: 01 388 5702).

Why a PET Show?

Firstly, to provide an opportunity for PUC members to meet each other and the staff of Commodore — in order to exchange news and views, and to assist each other with new PET applications and ideas.

Secondly, to assist PUC members to establish contacts with their local PET User Groups, to encourage the showing of resources and information and where now appropriate local user groups exist, to assist members to establish new groups.

Thirdly, to enable all PET Users (and prospective PET Users) to see under one roof a collection of the very best software and hardware products, programming tools, interfaces and commercial packages available for the PET in the UK.

Fourth and last, but not least, to give everybody an early chance to see, at first hand, the new 8000 series 80 column PETs and 1 megabyte disk units. Full details of specifications, prices, and availabilty wil be released at the PET Show.

Pascal AND Visicalc

Amongst the new software products that will be shown at the PET Show will be Commodore's latest Master Library releases: Pascal and Visicalc.

Pascal is a highly-praised structured programming language which has gained wide popularity in in Europe and the U.S.A. PET Pascal offers ALL the features included in the Pascal User Manual and Report by Jensen and Wirth.

Visicalc is a powerful numerical problem solving package which is an absolute must for Managers, Financial Analysts, Accountants, Engineers and Scientists . . . in fact anyone involved in planning, projections and costings. Visicalc's power and elegance really have to be seen.

Support your local PET User Group

Joining a local User Group is an excellent way of sharing ideas, programming hints and resources with a larger community of PET Users. At the PET Show will be the North London Hobby Computer Club; the Independent PET User's Group; the Southern Users of PETs Association, the Merseyside PET Users Group and the fledgling Scottish PET in Education Users Group.

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THE COMMODORE PET USERS CLUB

What is the PET Users Club?
The PET Users Club was founded in order to provide news, ideas, applications and programs relating to the PET and to act as an information exchange between Commodore and PET users and amongst PET users themselves.

How is this information distributed?
Approximately 8 times a year we send out the Commodore PET Users Club Newsletter to all our members. This contains product news, hints and tips on programming and details of PET compatible hardware and software available from other manufacturers.

Who joins the Users Club?
Many of our program authors are members and use the programming hints published in the User Club Newsletter to "tune" their programs to provide maximum performance. For first time PET Users reading the newsletter is one of the best ways of mastering the powerful capabilities of the PET.

Can I join without owning a PET?
Yes. Many of our members are users of PETs owned by Companies, Schools and Colleges. Quite a few people "just thinking" about buying a PET join too.

What other benefits do Club members receive?
Free entry to the Commodore PET Show, the most important event in 1980 where all the latest PET related Hardware and Software developments will be packed in London's Café Royale during the 13th and 14th June. Many Independent User Groups will also be present. User Club members also automatically receive the latest Commodore catalogues.

Would other Members be interested in the applications that I have developed for the PET?
Most certainly YES. Details of problems encountered and solved by other users are one of the chief benefits of being a User Club member. In order to encourage bashful writers the Commodore PET Users Club offer a "reward" of a £50 voucher (exchangeable for any Commodore Products) to the author of the best applications article or program published in CPUCN. In addition all articles published are eligible for entry in the competition "Best of the Year" with a £250 Commodore Voucher as the prize.

How much does it cost?
The subscription fee is £10 for a year's subscription to the newsletter, and £15 for overseas subscribers. This cost will soon be repaid by the time-saving hints given.

Can I backdate my subscription to include previous newsletters?
Yes, you can run an extra membership from June '79

How do I apply for membership?
Simply fill in the attached form and send us a cheque for £10, or £15 for overseas subscribers. Any appropriate backdated issues will be sent immediately and thereafter you will receive subsequent issues at regular intervals.

Please send this coupon to:– CPUCN Subscriptions Department, Commodore Systems Division, 818, Leigh Road, Slough, Berkshire.

PLEASE ENROL ME AS A MEMBER OF THE COMMODORE PET USERS CLUB.

Name .....

Address .....

.....

.....

PUC Membership from June '79.....	£10.00
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Overseas Supplement	£ 5.00

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I enclose my cheque/P.O. for: _____(please make cheques payable to: Commodore Business Machines (UK) Ltd.)

The World's First Commodore PET Show

GUIDE TO EXHIBITS

AKWIL ELECTRONIC SERVICES LTD **STAND NO. 44 & 46**

Akwil Electronic Services specialise in the design, supply, installation and after sales maintenance of "Disco Sound Specialised Lighting", "Public Address and Fail-Safe Audio Fire Alarms" and the new exciting "Motion Message" computerised display systems. The scope of their operation covers everything from clubs, theatres and discos to factories, stores and sports grounds.

Akwil Electronic Services Ltd.
129 Portland Street, Manchester M1 4PZ
Tel: 061 236 1937

AMPLICON MICRO SYSTEMS LTD **STAND No. 17**

Amplicon Micro Systems will be showing their FILEPROG program for the Commodore PET. Commodore disk unit and tractor printer. The program stores up to 3,000 sets and names and addresses which can be subsequently recalled for instant display on sales desk. The program also prints labels for mailing.

Amplicon Micro Systems Ltd.
143 Ditchling Road, Brighton, E. Sussex

ANAGRAM SYSTEMS **STAND No. 23**

Stock Control
The Anagram Systems stock control package is designed to simplify the taks of stock control. It is quick and easy to use. It provides full screen formatted input fields and comprehensive input data validation. Each screen displayed has an associated operator help facility.

The package allows addition, amendment and deletion of 500 to 600 stock items per diskette. Details of orders, allocations and stock movements for each item are recorded (on average five of each per monthly period, with a maximum of 255 per item). In addition supplier names and addresses and up to five VAT rates may be recorded. Accurate, up-to-date information is instantly available on essential data such as stock levels, outstanding orders and allocated stock.

Sales Ledger
The Anagram Systems sales ledger package is designed to ease the task of maintaining customer accounts. It is quick in operation and easy to use. It provides full screen formatted input fields and comprehensive input data validation. Every screen displayed has an associated screen with operator help facility.

The package will support approximately 500 customer accounts on a diskette. Details of the customer, all invoices, cash and credit notes for each account are recorded, and updated as they are typed in. Accurate, up-to-date information is instantly available on such essential data as customer balances, invoice and payment details, and credit limits.

Anagram Systems
9 Michell Close, Horsham, West Sussex, RH12 1JT
Tel: 0403 68601

AUDIOGENIC **STAND No. 53**

Audiogenic, as well as being the official mail order house for Commodore's Petpack Master Library Software have developed the "PETSET" hardware reset for "crashed" PETs which will be demonstrated on their stand.

Audiogenic Ltd (Software)
PO Box 88, Reading, Berks.
Tel: 0734 595269

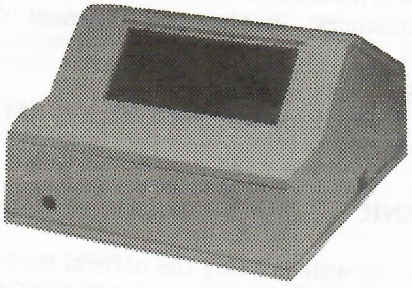
BANNER **STAND No. 38**

Minicomputer Regulator
This unit provides instantaneous voltage regulation and ultra isolation from both transverse and common mode noise for any type of load. It also suppresses transients, protects against overloads and serves as a portable dedicated line. It is the ultimate in AC lne conditioning equipment.

The Sola MCR is particularly applicable in systems involving mini or micro computers, POS equipment, microprocessors or data terminals — where noise and transients cause errors or low voltage and short term disruptions can result in loss of memory. The output waveshape is sinusoidal and contains less than 3% harmonic distortion, making it ideal for any electronic load.

Common mode nose rejection exceeds 120 db for the regulator while transverse noise rejection is better than 60

ACOUSTIC TELEPRINTER COVERS



The Mitrelynn acoustic teleprinter cover has been specifically designed to suit the Commodore Pet desk top computer unit, dramatically reducing the noise emmitted from the teleprinter by over 80%.

The unit is manufactured in attractive vacuum formed leather-grained ABS plastic, lined with an unfaced self-extinguishing poly-eurothane foam for maximum noise absorbant qualities.

All functions have easy access and the cover easily lifts off for changing paper.

MITRELYNN

Mitrelynn Limited,
Thomas Evans Works, High Street,
Sawston, Cambridge.
Tel: 0223 835792/871463
Telex: 817855

AMPLICON Micro Systems Limited

Products for the Pet from Amplicon

PET MEMORY TO S100 BUS CONVERTER
enables use of up to four S100 bus cards including low cost expansion memory with 4K and 8K Pets. **Only £85**

USER PORT INTERFACE
enables up to 5½ digits b.c.d. (21 bits parallel) t.t.l. levels to be fed into Pet via the user port. **Only £65**

MINI FLOPPY DISCS
high quality professional quality blank discs for use with Commodore 2040, despatched by return. **£30 per box of 10**

"FILE PROG"
General purpose disc based filing system program incorporating print routines, allows creation and subsequent updating of over 1500 records containing company name, contact name address telephone number and notes. For use with 32K Pet, dual floppy disc drive and printer. **Only £140**

OFFICIALLY APPROVED BY COMMODORE

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143e Ditchling Road,
Brighton, E. Sussex BN1 6JA.
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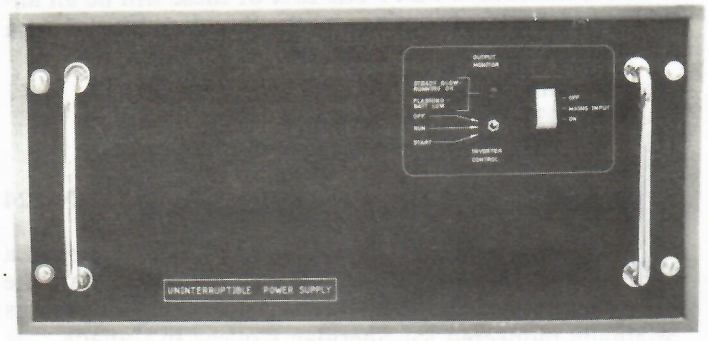
Telex: 877470 AMPCON.

db — true ultra isolation. Input line voltage variations as great as ± 15% are instantaneously regulated to a maximum output deviation of ± 3%. The portable 140 VA model is designed for office type environments and have a low sound level of 43 db.



Battery Back-up System
The Banner Mains Standby Power Unit provides an uninterruptible sinusoidal AC power supply source for computers, data terminals, point of sale devices or any other similar electronic equipment which requires a 'no break' supply for protection against loss of its incoming AC mains supply.

The purpose of this unit is to prevent an uncontrolled shutdown of a computer or similar system and then allow the system to continue functioning on the internal battery during the duration of an AC power failure.

The length of time for which the equipment can be operated on battery back-up is dependent on the rating of the internal battery provided. Time periods available as standard are either 15 or 60 minutes, although other periods can be made available to meet customers' special requirements.

The equipment consists of an Inverter power supply, Batter charger and controller/regulator together with the maintenance free rechargeable sealed lead acid battery. All the controls and indicators are mounted on the front panel for easy access and operation.

The Banner Electric Company Ltd.
Pindar Road, Hoddesdon, Herts. EN11 0EF.
Tel: 09924 60555 Telex: 847777 - Delray G - Banelec

BARONESS INTERNATIONAL STAND No. 22

Baroness International are a public relations firm specialising in computer electronics accounts. Baroness have been responsible for the planning and organisation of "The World's First PET Show" on behalf of Commodore.

The Baroness team inlcude:— Senior Partner, Ilona Uhl; Account Executive, Jeremy Biggs; Traineee Account Executive, Janice Ellis; Secretary, Julie Sergeant; and P.A., Commodore PET Business System, which provides client monthly activity reports, direct mailing lists, word-processing facilities and accounts (but makes terrible coffee . . .)

Baroness International Pubic Relations
1-3 Old Compton Street, London W1V 5PH.
Tel: 01 734 2907/8/9

B & B(Computers)Ltd.
B & B Computers announce "REAL" direct access files for the Commodore Disk Drive.

Using the set of machine code routines developed as B & B Computers' Disk Operating System (or BBDOS) it is possible to access a random file in the normal manner.

B & B (Computers) Limited
Suite 1, 124 Newport Street, Bolton BL3 6AB, Lancashire
Tel: 0204 26644

BRISTOL SOFTWARE FACTORY STAND No. 13

Bristol Software Factory have produced a comprehensive suite of accounting software for the Commodore PET. The programs are to the highest standard, utilize well laid out screen formats, and are virtually proof against any possible user error.

Trader
Integrated stock control, invoicing and sales accounts. Total capacity of stock item and sales account is 2,200 using the Commodore dual drive disk unit or 4,400 with quad drive.

Item
Integrated open item purchase and now ledger system handles 1,000 accounts, 200 nominal ledger headings and 6,000 active invoices.

Monitor
Open item sales ledger system with nominal analysis. Handles 1,000 sales, 200 nominal ledger headings and 6,000 active invoices. Standard stationery available for all packages.

Bristol Software Factory
Micro House, St. Michael's Hill, Cotham, Bristol, Avon
Tel: 0272 20801

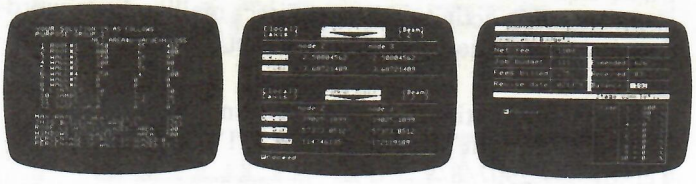
CALCO SOFTWARE STAND No. 42

KRAM is short for: Keyed Random Access Method; the package consists of a ROM for the middle slot, a disk containing the KRAM support logic which is in machine code form for loading to the top of RAM, together with demo programs (Mailing list, etc.) and a 40 page User Manual.

For the system designer using KRAM, a system can be implemented without the need to design explicit file structures; for the programmer, basic code is simpler and of the order of 50% shorter in comparison with existing 2040 random access techniques. For the user, retrieval is fast, reliable and maximum use is made of the available disk space (vis. variable record length, external keys option, tree-structured index invisible to the programmer). Conversion of existing systems using relative-record file access is straightforward, requiring merely the use of a numeric sequence of key values.

Calco Software
Lakeside House, Kingston Hill, Surrey KT2 7QT.
Tel: 01 546 7256

CLAREMONT CONTROLS — STAND No. 41



Constructional Software is a library of programs written for the construction industry. It embraces architecture, quantity surveying, structural engineering and service engineering and has applications for consultants and contractors. Constructional Software encourages the use of the microcomputer for design and administration, programs ranging from the rapid solution of straightforward but repetitive calculations through the comprehensive analysis of structures to powerful management tools for the the control of resources and analysis of networks. Each program is written in close consultation with practitioners in the various fields to ensure its practical value in a commercial application and emphasis is placed on ease of operation by non specialised users. An up-date service takes into account revised standards from time to time and a newletter keeps users up to date with new development. Programs are supplied in neat binders with clearly written user manuals.

Constructional Software offers a rapid and accurate method of carrying out individual time consuming tasks thereby maximising human resources.

Claremont Controls
Chimney Mill, Newcastle upon Tyne NE2 4AL
Tel: 0632 610210

COMPSOFT — STAND No. 48

For PET owners who find limitations with the standard information retrieval systems, Data Management System offers a comprehensive package with sophisticated numeric functions, search and sort routines, print options and label processing.

Recommended by Commodore for their 32K PET, it is a powerful and flexible set of programs designed to bring the power of a small computer to the business man who is not a computer expert.

Up to 5,000 items may be stored on a single floppy disk with each item being immediately accessible by a key that can be up to 16 characters long. Up to 20 fields of information can be used on each item. Items may be created, updated and deleted with arithmetic functions provided for numerical information.

The user can search on up to four criteria at a time, either within any field, across fields, or on part of a field. In addition the normal four functions (equal, not equal, less than and greater than) DMS allows sliding string searches and numeric range searches.

Report layouts are specified by the user at run time and vary from numerous standard layouts to user definable label prints.

Reports may be sorted on any field and numeric totals requested at the end of the print.

Files may be copied using DMS with data being dropped or extra space inserted for future additions.

Arithmetic may be performed on either the whole file or on selected items within a file allowing for gross profit calculation, currency rate updates, etc.

Compsoft Limited
Old Manor Lane, Chilworth, Guildford, Surrey.
Tel: 0483 39665

COMPUTABITS — STAND No. 5

Computabits are a publishing company specialising in books on microcomputers and their applications. Recently published is their bestselling "PET Revealed" by Nick Hampshire. Currently "on the stocks" is a series of books on the Commodore PET. The first of these will be an anthology of PET subroutines — the 'building blocks' of a commercial applications program.

Computabits Limited
P.O. Box 13, Yeovil, Somerset
Tel: 0935 26522

COMPUSCIENCE — STAND 24

A North American PET specialists who have developed a high degree of experience in PET interfacing. They are the manufacturers of Mupet, a multi-user system. Mupet was originally pioneered for Sheridan College in Canada.

Compuscience will also be demonstrating a data management system for the PET.

BMB Compuscience Limited
PO Box 121, Melton, Ontario L97 2Y3, Canada
Tel: 0101 416878 0581

COMPUTASTORE — STAND No. 33

Computastore, a Manchester based software house will be showing their Payroll package. This is an eacy to use system specially designed for the first time user.

Up to 273 employees can be stored on a single disk, and Computastore's unique Index Sequential Disk access ensures speedy recall of any employee's details.

Holiday pay, departmental analysis, credit transfers, PAYE documentation and easy to read payslips (with user defined text) are just some of the many facilities of Computastore's Payroll.

Computastore Limited
16 John Dalton Street, Manchester M2 6HC
Tel: 061 832 4761

COMPUTER SERVICES MIDLANDS — STAND No. 52 & 54

As major suppliers to the Accountancy Profession CSM will be showing their Incomplete Records System together with Time Records Costing for Professional Practices. A new entry to the Approved Products Catalogue is the 'VAT Retailers Special Scheme' program aimed at either Accountants or any business needing to prepare VAT returns. The program covers all the Special Schemes. The CSM Double-Glazing Program prepares cutting schedules, works orders and costings for that industry.

Computer Services Midlands
Refuge Assurance House, Sutton New Road, Erdington, Birmingham
Tel: 021 382 4171

CPS (DATA SYSTEMS) — STAND No. 47

CPS will be showing the CPS 3982 printer, a fully reconditioned IBM 'golf ball' printer for £960 + VAT which can be used with Comwordpro III.

Also the following software will be demonstrated:—
COMPASS — Save up to 90% on program development time. Includes Random Access routines.
NEWSBOY — System for newsagents accounting and delivery round control. (Over 70 programs).
GOLD — Product costing system for manufacturing jewellers.

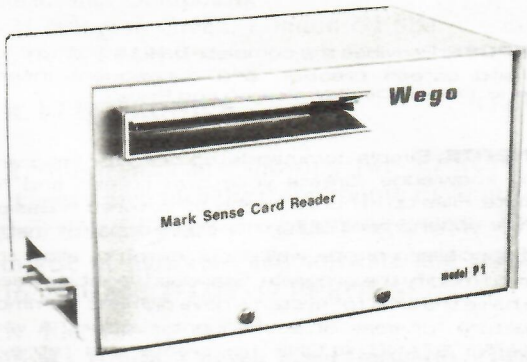
CPS (Data Systems) Limited
Blackfriars House, Westgate, Warwick CV34 6AN
Tel: 0926 496291

Wego Computers Ltd

Wego Sequential Switching Unit

Allows up to 5 devices to be connected to the mains, and with one switching operation power up and down all the devices, in the correct sequence.

CBM approved **£59.55 + VAT**



Mark Sense Card Reader

"A pencil, a card, and this low-cost reader . . . it's the new, fast way to enter data into your micro-computer." Versions available able to communicate with PET, APPLE, TRS-80, or any S100 or RS232 bus. Ideal for business and education applications.

CBM approved Prices from **£620 + VAT**

Available from your local dealers, or direct from Wego Computers Ltd., 22A, High Street, Caterham, Surrey CR3 5UA. Tel: (0883) 49235 Telex: 8813791

Authorised COMMODORE APPLE Dealers

3D Digital Design & Development

43 Grafton Way, London W1P 5LA
Tel: 01-387 7388

INTRODUCE YOUR PET TO THE OUTSIDE WORLD

with our range of IEEE-488-compatible interface units. Boxed complete with power supply, leads, switch, fuse, indicators & illustrative BASIC software supplied. Address selectable.

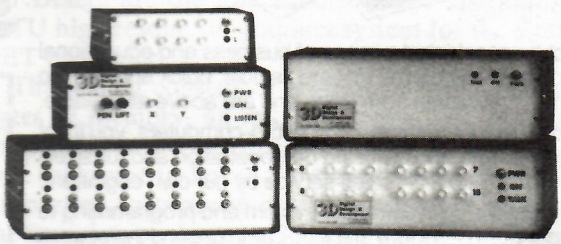
★ **16-CHANNEL A-D CONVERTOR UNIT**
- 16 inputs, 8-bit resolution
- Input ranges 0-2 5v, 0-5v, 0-10v, single ended (customer specified)
- Conversion time 150μs
- BNC front panel connectors
- PRICE: £300

NEW ★ **8-CHANNEL 12 BIT A-D CONVERTOR UNIT**
- Wide input range: Unipolar, Bipolar, or Differential
- Conversion time 100μs
- DIN front panel connectors
- PRICE: £600

★ **16-CHANNEL RELAY CLOSURE UNIT**
- 16 individually addressable reed relays
- Front panel 4mm banana sockets
- LED indicates each relay's state
- Contracts rated 100v, 0-5A.
- PRICE: £350

★ **8-CHANNEL D-A CONVERTOR**
- 8 single-ended outputs, 8-bit resolution
- Output ranges 0.2 - 5v, 0-5v (customer specified)
- Front panel BNC connectors
- PRICE: £350

★ **8-CHANNEL DATA ACQUISITION UNIT**
- Interfaces to most digital instruments
- 8 channels of 8 bits each
- Plus two handshake lines/channel
- BCD or byte oriented data
- PRICE: £400



TERMS: All prices ex.VAT. 5% discount for CWO or payment within 14 days of order. Cheques should be made payable to 3D Digital Design & Development. P&P extra. All goods are supplied under 90 days warranty. ALL UNITS EX-STOCK.
CUSTOM DESIGN UNDERTAKEN.

PETAID

EVERY PET SHOULD HAVE ONE!

OFFICIALLY APPROVED BY COMMODORE

PETAID **EVERY** PET SHOULD HAVE ONE!

PURPOSE: Provides the complete basic structure for file and screen creation and subsequent Insert, Amend, Delete, Display, Search and Print.

BENEFITS: Simple commands, no need for programming knowledge. Create your own screen and file layouts. Files up in hours. Highly structured in Basic. Simple appendment of further basic code for maths and specialised prints, well documented to allow the user to modify the program. Standard variables used, can halve the time for systems development. Common structure for ease of subsequent support. A very powerful STAND ALONE file create and retrieval system. The create file program can be used many times for various files. Further compatible utilities to be available.

VERSIONS AVAILABLE: Tape Files £52.95, Sequential Disk £150.65, Random Access Commodore Disk and Computhink 400K £208.15, Computhink 800K £231.15, Indexed Access Method Commodore Disk (Alpha Key Field) £288.65, Extract & Sort on Random Access or IAM Files £87.40.
All prices include V.A.T., Package and Postage.

PRINTERS SUPPORTED: Commodore, Anadex, Qume, Teletype 43.

FEATURES, The user may:
Define their own screen and file formats. Multiple disks per file. Very powerful search routine on any field and any content. Up to 50 separate search criteria or multiple simulataneous searches. Unlimited number of fields per record. PETAID programs within same Version are compatible with all PETAID created files of that version. Tape to Disk conversion utility as an extra.

MAIL ORDER Written orders with cheque or Access/Visa No. to:

STAGE ONE SOFTWARE 6 Criterion Arcade, Old Christchurch Road, Bournemouth. 23570

BARCLAYCARD VISA — Buy it with Access

Please supply: ITEM _____ QUANTITY _____

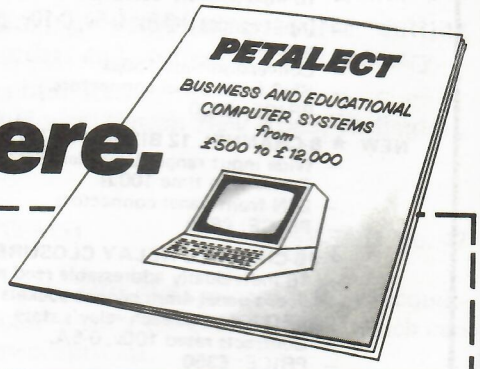
AMOUNT £ _____ CHEQUE NO. _____

Name _____

Address _____ ACCESS/VISA NO. _____

If you don't know where to start with computers...

start here.



Petalect have selected a range of business and educational computer systems that are flexible, quick and easy to programme, available from stock and are above all, reliable.

With our 9 years experience in micro-computers, you'll get objective advice, a convincing demonstration and full after-sales service by our own engineers.

If you want the right computer system and programming to make your business more efficient, call in or send the coupon for full details of our services.

PETALECT
Electronic Services Ltd
Dealers for CBM Commodore
Dept. PESL 33/35 Portugal Road, Woking, Surrey GU21 5JE
Telephone (04862) 69032-68497

Please send full details of your specialist services and computer systems.

Name _____

Company _____

Position _____

Address _____

_____ Tel. No. _____

3D DIGITAL DESIGN & DEVELOPMENT — STAND No. 43

3D are an electronics company specialising in analog interfaces for the IEEE bus. Their Commodore Approved range of PET compatible devices include:

IEEE 488 16 channel A to D convertor
IEEE 488 12 bit resolution A to D converter iwth 8 input channels
IEEE 488 8 channel D to A convertor
IEEE 488 16 channel realy closure unit
IEEE 488 interface for X, Y plotter with pen lift control
IEEE 488 8 bit resolution, digital data acquisition unit with 8 channels.
Custom interfaces also available.

3D Digital Design & Development
43 Grafton Way, London W1D 5LA
Tel: 01 387 7388

DATAVIEW — STAND No. 8

Dataview will be showing the famous Wordcraft word processing program which has been developed for use with the Commodore 3032 professional Business Computer.

Wordcraft uses the computer screen as a 'window' on a page of the document. This window can be panned up, down, left or right across the page so that the operator can inspect the document prior to printing.

With Wordcraft the 3032 becomes a genuine word-processing system using all the facilities normally found only on more expensive systems.

Wordcraft can be operated very easily and does not require any specialisd knowledge of computer programming. An average, competent typist or clerk would have no difficulty in mastering the system. It is therefore an ideal word processor for the busy small to medium sized business where speed and accuracy are essential in written communications but where staff resources are limited.'

Also on show will be Microclerk, an electronic filing and retrieval program which greatly extends the capabilities of the Commodore Computer in handling general office paperwork.

Dataview Limited
Church Sreet, Colchester, Essex CO1 1NF.
Tel: 0206 78811 & 63377 Telex: 987562

EDUCATIONAL COMPUTING — STAND No. 2

Educational Computing is designed to help keep you abreast of the latest developments and ideas within educational computing. With regular features, such as begin ner's guide to computing, case studies, applications across the school curriculum, covering language tutorials on BASIC and assembly codes and software reviews.

For the classroom there are equipment reviews, book reviews, a resources guide, and reports about courses available in the UK.

Finally the occasional article on careers within the computing industry.

Educational Computing is an ECC Publication and available on subscription for only £5 a year in the UK.

Educational Computing
30-31 Islington Green, London N1 8BJ
Tel: 01 359 7481

G.R. ELECTRONICS — STAND No. 34

G.R. Electronics are showing two EPROM BURNER packages which turn the Commodore PET into a powerful and flexible EPROM Programming system. The packages comprise of hardware and software and are suitable for 2716/2516 and 2732/2532 EPROMS.

G.R. Electronics
Fairoaks House, Church Road, Newport, Gwent
Tel: 2633 214147

HERONVIEW — STAND No. 49

As well as being a Commodore dealer we specialise in software writing for control applications, both on the built-in IEEE-488 bus and via customer interfaces. Our strength lies in assembly language for high subject data transfer.

We are showing an example of this work in the audio visual field with the control of a two projector tape and slide system.

Heronview Limited
3 Errol Street, London EC1
Tel: 01 628 5423

IDA — STAND No. 1

IDA introduces Workstations, systems accessories and maintenance supplies for PET computers. The full range of ergonomically designed workstations and printer desks is now being made available to PET users in the UK.

Accessories available include minidiskette easel binder, mini diskette filing frame, copy holder and continuous form stand.

Latest mainentance products include a disk drive head cleaning kit, a multipurpose cleaning kit, and a diskette cleaning kit.

IDA Limited
170 Oaklands Drive, Weybridge, Surrey
Tel: 0932 54354

IJJ DESIGN — STAND No. 19

IJJ Design are the sole importers and distributors of the MTU high resolution graphics system for the Commodore PET computer.

The system consists of a graphics board containing 8K bytes of memory, an interface board and cable assembly to connect to the PET memory expansion port, a card file and enclosure to house the boards alongise the PET and supporting software to drive the system. The list price for the complete package is £309. An internal version graphics board is now available at £294.

The system provides for a 320 x 200 matrix of dots on the PET screen, and/or on a seperate video monitor which is driven directly from an outlet on the graphics board. The graphics memory is easily reconfigured to operate anywhere in the PET memory map, though it is most usually located immediately above the top of memory so that it can be used as an 8K expansion when graphics is not in use.

A 1.4K byte machine code program is provided to control the system, but simpler and more versatile software is available from us for 20 pounds that provides for 16 extra BASIC keywords which can be used in the normal way. This advanced software occupies 4K bytes of PET memory.

The system will work satisfactorily with any PET and provides a huge increase in its potential as an educational or research tool.

IJJ Design Limited
37 London Road, Marlborough, Wilts SN8 2AA
Tel: 0672 53153/0272 292966

IMAGE SCIENCE **STAND No. 26**

Image Science Microcomputers are a company specialising in scientific and research applications, software, games, business.

Image Science develop hardware and software for the PET computer as well as being a dealer in all PET products. Our unique music box designed by Roy Want enables tunes to be written on PET and can also be used with the games which are also available. We will be demonstrating our own disassembler package and our own address labelling package and video processor.

The director of our training and development, John Severn, will be available on the stand.

Image Science Microcomputers Limited
Notting Dale Technology Centre, 191 Freston Road, London W10 6TH
Tel: 01 969 0819

INTEX DATALOGIC **STAND No. 37**

Intex Datalogic will be showing their latest software products for the Commodore PET, including:—
Payroll Mk2, Petty Cash, Stock Control and DOS 8.

Intex Datalogic
Eaglescliffe Industrial Estate, Eaglescliffe, Cleveland.
Tel: 0642 781193

ISA **STAND No. 25**

ISA Computer Services Ltd, the Bradford based software house who are authors of Commodore's Payroll program in the Commodore Business Software series will be demonstrating their own accounting system, which consists of a number of menu-driven financial modules.

ISA will also be demonstrating a new accounting system for the new 8000 series PETs on the Commodore stand.

ISA Computer Services Limited
Kershaw House, 55 Well Street, Bradford
Tel: 0274 31366

JCL SOFTWARE **STAND No. 9**

JCL Software specialise in programming aids, technical programs and pre-written machine code subroutines.

On our stand at the PET Show we will have Assembler packages for 8, 16 and 32K PETs together with a range of support software that allow machine code to be integrated into BASIC programs. This means that full use may be made of the 'USR' and 'SYS' commands in the PET Microsoft BASIC. These programs are specifically aimed at the first time machine code programmer and the User without access to Disk drives. By providing a single program with all necessary facilities; Editor, Assembler and Debugging aids, JCL Software have reduced the number of media operations to an absolute minimum, a boon to the cassette drive user.

Also on display will be a Central Heating Calculations package for sizing radiators in a new installation, and two recently introduced groups of machine code utilities providing enhanced screen display in programs with a large amount of user interaction.

JCL Software
47 London Road, Southborough, Tunbridge Wells, Kent
Tel: Tunbridge Wells 27454

L.D. COMPUTER SERVICES **STAND No. 35**

LDCS Advanced Business Sytems offer a software package that integrates invoicing, stock control, sales ledger giving a capacity fo 2,000 stock lines, 400 customer accounts, 1,500 stored invoices per month, 3,000 heads of sales analysis. Sales and purchase ledger package is also available for inspection

L.D. Computer Services Limited
Waterwitch House, Exeter Road, Newmarket, Suffolk CB8 8LR
Tel: 0638 68681

MACHSIZE **STAND No. 30 & 32**

Machsize specialise in the installation of microcomputer systems into an industrial environment. They will be showing the Machsize Industrial Rack mounted version CBM 3032, 4032 — Process monitoring system for controlling process manufacturing. Also shown will be the Machsize 3080 Bar Code Reader — used in conjunction with stock control and in any system whereby a check on movement of parts has to be kept.

Machsize Limited
York House, Claredon Avenue, Leamington Spa
Tel: 0926 312542

MEDICOM **STAND No. 51**

Medicom is a microsoftware company devoted to the needs of medical people.

Medicom launched its first product, Practice Monitor, at GP INFO 80 — an exhibition in March organised by the Royal College of General Practitioners committee on Computing. Since that time, Medicom has enjoyed extensive coverage by the media, and great interest from all parts of the medical profession. Mediconomics carried a four page feature on the product, which was also covered by Pulse, Doctor, The Daily Mail, Computer Weekly, Computing and Radio Four.

Our programs originate almost entirely from doctors with many years experience of medical practice. They are refined and documented by our own team, to commercial standards. Most of our programs hve been in regular use for six months or more in routine NHS or GP environments, and have proven usefulness in this field.

The Company has close working relationships with bodies such as the British Medical Association and the Royal College of General Practitioners, and products are designed to conform with their ethical guidelines on such matters as patient confidentiality.

Medicom can supply medical and technical advice on a wide range of systems, ranging from hospital laboratory interfaces, to heart monitoring or patient record systems.

With offices in West London, Medicom is well placed to provide an efficient national centre for medical computing.

Medicom
17-19 The Broadway, Ealing, London W5
Tel: 01 579 5845

MICROPROCESSOR SERVICES **STAND No. 21**

Costings
A powerful management system which enables any company to quickly and easily know their expenditure within each of their individual cost centres. Currently set for 200 cost centres each containing 100 cost categories. Comprehensive and easy to use the system can be operated by any member of staff.

Time
A data collection system for the computerised clocking station accurately recording activities against time at remote stations, which can then be analysed and processed at a convenient time. For example full preparation and analysis of 'time sheets' for costings and payroll. Incorporates full security procedures. An external industrial keypad available if required.

Microprocessor Services
139 Beverley Road, Hull, North Humberside.

MITRELYNN **STAND No. 13**

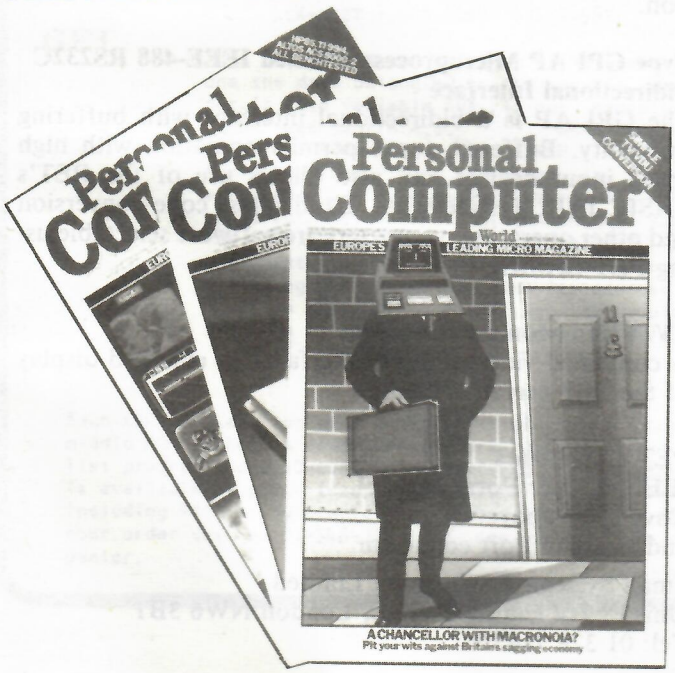
Acoustic cover for the Commodore PET. The acoustic cover is designed for applications where the Commodore printer is used in a noise sensitive environment. It will reduce the noise of the unit by over 80%.

The cover and base are manufactured in a tough, fire resistant ABS plastic, having an attractive leather grain finish. The interior of the cover is lined with an unfaced self extinguishing polyerethane foam to get maximum noise absorbency.

All the function areas, e.g. switches, etc. have easy access and for paper changing or maintenance the cover simply lifts off.

Mitrelynn Limited
Thomas Evans Works, 159/161 High Street, Sawston, Cambridgeshire CB2 4HN
Tel: 0223 835792/871463 Telex: 817855

PERSONAL COMPUTER WORLD **STAND No. 20**



Personal Computer World is Europe's biggest selling microcomputer magazine with a circulation of over 50,000. Every issue contains more News coverage than any other monthly, Benchtests on the latest hardware and a complete up-to-date Buyer's Guide in every issue.

Readers in the business, hobby and educational sectors all find articles for them on software, hardware, applications, games and languages. On sale from the stand will be the current issue, recent back numbers and the new style binders. Staff will be on hand to discuss specific problems in detail and to give further information about the 3rd Personal Computer World Show to be held at the Cunard International in Hammersmith on September 4th, 5th and 6th.

Personal Computer World are pleased to announced that this month sees the first issue of *Australian* Personal Computer World edited by Sean Howard. This is a joint venture with an established publishing house involving the syndication of articles from the UK edition and specific Australian news.

Personal Computer World
Sportscene Publishers (P.C.W.) Ltd.
14 Rathbone Place, London W1P 1DE
Tel: 01 637 7991/2/3

PETALECT **STAND No. 31**

Petalect Electronic Services Ltd is a company of some eight years standing, foremost as a servicing outlet for major companies dealing with electronic calculators and office machinery. For the least two years we have diversified our talents into the Micro computer industry, selling the PET range of micro computers and associated hardware. Our previous experience in servicing electronic equipment has equipped us to deal with the specific servicing of micro computers and accessories, and we have an experienced team of engineers to deal with both on and off site servicing. We have also built up expertise in software and business systems.

Petalect Electronic Services Limited
32 Chertsey Road, Woking, Surrey GU21 5JE
Tel: Woking 23637/21776

PETSOFT
SOFTWARE SUPERMARKET **STAND No. 4**

Here's an opportunity to try out the amazing Petsoft Programmers Toolkit. It is a plug-in ROM chip costing £55, which gives the PET ten powerful new commands. "Excellent value" said Practical Computing.

Ever wondered what it's like to run a public company? Come and try with the Petplan Business Simulation. It's on sale at £60, and pick up a FREE catalogue of 200 PET programs.

ACT Petsoft
Radclyffe House, 66-68 Hagley Road, Edgbaston, Birmingham B16 8PF.
Tel: 021 455 8585

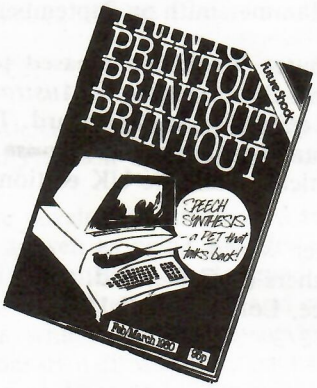
PETSOFT BUSINESS SYSTEMS **STAND No. 6**

Sales and Purchase Ledgers for £120 on disk or £95 on cassettee — that's got to be the best value in professionally written business software today. Come and try them for yourself.

WORDCRAFT has been described by the Press as "The Rolls Royce of PET Word Processors". Come and see us if you would like to know more. Wordcraft costs £325 on disk.

Petsoft Business Systems
Radclyffe House, 66-68 Hagley Road, Edgbaston,
Birmingham B16 8PF.
Tel: 021 455 8585

PRINTOUT — STAND No. 3



Like to know more about the PET? PRINTOUT is a glossy magazine devoted soley to the PET, appearing 10 times a year.

The special June Show issue on sale at our stand carries a full evaluation of the new 8032 SuperPET by Jim Butterfield, the transatlantic PET expert, an exclusive with Mr Commodore himself, Jack Tramiel, plus news, hardware and software reviews, programming hints and an outrageous gossip column.

PRINTOUT costs 95p an issue or £9.50 for a year's subscription.

PRINTOUT
Greenacre, North Street, Theale, Berkshire RG7 5EX
Tel: Slough (0753) 20814

RADAN COMPUTATIONAL — STAND No. 45

Radan Computational of Bath will be showing the PET carrying out a range of tasks together with both digital plotters and paper tape punches and readers. This will be of particular interest to engineers and scientists as well as to others requiring graphic output drawn to a high degree accuracy from their PET.

Radan will be showing their Radan-Tektronix Plotting System which incorporates a digital interactive plotter and includes routines for highly effective operation with the PET. Software available from Radan for use with their Plotting System includes:

Graph Plotting
N.C. Tape Verification for Machine Tools
Digitising
Schematic Drawing

Firmware for the Plotting System is also to be available.

Radan will also be showing their N.C. Tape Preparation and Editing System which allows tapes to be prepared and edited for machine tools at low cost.

Radan Computational Limited
19 Belmont, Bath BA1 5DZ
Tel: 0225 318483

SMALL SYSTEMS ENGINEERING — STAND No. 36

IEEE-488 Serial Interface Type C
The type C interface is a unidirectional serial interface which is fully compatible w th the CBM floppy disk unit. All type C interfaces now incorporate a switchable code conversion facility to match print out to the PET's screen display for both upper case/graphics and upper/lower case display modes. Output is RS232C or 20mA loop compatible. The interface will respond to a DTR handshake signal permitting high speed operation with buffered printers.

IEEE-488 Serial Interface Type B
The type B interface is a bidirectional serial interface for devices requiring serial input and output such as KSR terminals, modems, laboratory instruments and other computer systems.

An enhanced version of the type B interface (the B200) is now available. The B200 incorporates a switchable code conversion feature and full RS232C handshake capability. Baud rates are software selectable.

Type B and C interfaces have crystal controlled timing and switch selectable baud rates. Listen/Talk addresses are link selectable.

IEEE-488 Addressable Parallel Interface Type AP
The type AP interface is capable of interfacing printers with Centronics or Anadex type parallel interfaces. Type AP units are also available with switchable code conversion.

Type GPI AP Microprocessor Based IEEE-488 RS232C Bidirectional Interface
The GPI AP is a bidirectional interface with buffering capability. Buffered unput permits operation with high speed input devices and also allows use of the PET's BASIC INPUT statements. Baud rates, code conversion and other operating parameters are software selectable using PET BASIC.

TV/Video Monitor Interfaces
A combined video and TV interface for enlarged display of the PET screen contents.

PET Connectors
IEEE or User Port (24 way).
Covers for above.
2nd Cassette Port connector

Small Systems Engineering Limited
Unit F, 2/4 Canfield Place, London NW6 3BT
Tel: 01 328 7145/6

OFFICIALLY APPROVED BY COMMODORE

KRAM

KEYED RANDOM ACCESS METHOD

See it at the PET SHOW

KRAM is quite simply a revolution in microcomputer disk access techniques, and another FIRST for the PET! Just plug the KRAM ROM into your 16K/32K PET, load the rest of KRAM's machine language logic from disk (just like DOS), and with the ten commands illustrated below you have complete control of your disk data. KRAM is fast, compact, and does not interfere with BASIC. You'll wonder how you managed without it! Get cracking - get KRAM!

CREATE

KC$="CREATE 0:MAILFILE,120,15,1":SYS 24600

This example tells KRAM to create an indexed file called MAILFILE on the disk in drive zero, with a record length of 120 characters and a key length of 15 characters which start at position 1 of the record. KRAM looks at the RESERVED variable KC$ to identify the function and its parameters; the SYS call tells KRAM to execute the function. The record length can be any value up to 254 characters and the key up to 48 characters, a total of 302. KRAM packs as many records into the 255 character disk block as necessary.

OPEN

KC$="OPEN 0:MAILFILE": SYS 24579

This tells KRAM that we will want to make accesses to the file called MAILFILE on the disk in drive zero. KRAM returns in location zero (peek(0)) the file number by which this file can be accessed during the rest of the program.

ADD

KC$="ADD 1,NA$,AD$": SYS 24591

This tells KRAM to add to file number 1 the data in variable AD$, whose key is NA$. For example in a mailing list, the key NA$ might be the name "SMITH A.J. " and AD$ might be the address "120, HIGH STREET, ANYTOWN". Any normal double character string variable can be used to denote the key and the record.

GET

KC$="GET 1,NA$,AD$": SYS 24582

This tells KRAM to get from file number one the data belonging to the key NA$ and put it into variable AD$. In our example, if NA$ was "SMITH A.J. ", KRAM would read the address "120, HIGH STREET, ANYTOWN" from file and put it into variable AD$. If we weren't sure of the exact surname, we could give KRAM the key "SM " and it would get for us the next alphabetically higher name beginning "SM", together with its address! Or if we gave KRAM a blank key, it would find the first name and address on file.

READ

KC$="READ 1,NA$,AD$": SYS 24585

This tells KRAM to read the data belonging to the next highest key following the name in NA$, and put it into variable AD$. In our example, a complete file of names and addresses could be read in alphabetical order, starting at any name in the file, simply by executing successive READ commands! For instance, having got Mr.A.J.Smith from file, executing the READ command as above would get us say "SMITH M. " in NA$ together with his address in AD$.

READ-

KC$="READ-1,NA$,AD$": SYS 24585

This works like READ, except BACKWARDS! It tells KRAM to read the data belonging to the next lowest key preceding the name in NA$, and put it into AD$. For instance, having read "SMITH M. " with the forward read, executing the backward read as above would get us "SMITH A.J. " in NA$ together with his address in AD$.

PUT

KC$="PUT 1,NA$,AD$": SYS 24588

This example tells KRAM to rewrite to file number 1 the data in variable AD$ which belongs to key NA$. For instance, if we wanted to change Mr.A.J.Smith's address, we would simply set NA$ equal to "SMITH A.J. ", AD$ equal to his new address, and execute the PUT function.

DELETE

KC$="DELETE 1,NA$,AD$": SYS 24594

This tells KRAM to delete from file number one the key contained in NA$ and its associated data contained in AD$. In our example, to delete Mr.A.J.Smith from the file, we would simply set NA$ equal to "SMITH A.J. ", AD$ equal to his address, and execute the DELETE function. KRAM will release for further use the disk space made available by the deletion.

CLOSE

KC$="CLOSE 1": SYS 24597

This function tells KRAM that file number one is finished with for now. KRAM updates the BAM on disk, but the file can still be used without a further OPEN command.

INIT-IALIZE

SYS 24600

This function clears KRAM's work areas and buffers ready for use, at the beginning of each program.

Each KRAM package includes a ROM which plugs into the middle ROM socket, a demonstration disk with a mailing list program and a 40-page User Reference Manual. KRAM is available by post (cash with order) price £115 including VAT, or by credit card phone the KRAM 24 hour order desk on 01-546-7256; or see your nearest dealer.

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STAGE ONE SOFTWARE — STAND No. 11

Stage One Computers was set up in 1978 by its existing partners as a result of their awareness of the impact that microcomputers would have on, most particularly, the business world.

The partners have accumulated over twenty years experience in computers especially in the areas of systems and software design and production. The company functions from offices and showrooms in the trading centre of Bournemouth.

Prior to set up the partners spent six months selecting the correct microcomputers for their project. The same commercial criteria were used for selecting the equipment which a prospective purchaser would use. All aspects of the equipment were looked at in great detail and whilst it is accepted that at this stage of evolution of the microcomputer a direct comparison with the minicomputer cannot be performed, especially in the area of operating software and software tools, their detailed knowledge of such giants as Digital Equipment and Data General minicomputers was used as a yardstick.

Stage One Computers is now a company of six people with a strong emphasis on quality software. Our software products are designed to the highest commercial standards and are thoroughly documented. Five man years of development work together with knowledge accumulated over 20 years has gone into producing:

a database file create and management package
b utilities
c software tools
d word processor
e numerous commercial packages

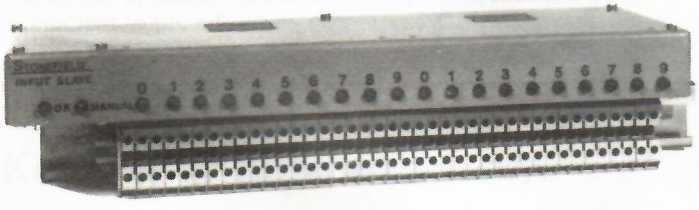
Stage One Computers
6 Criterion Arcade, Old Christchurch Road,
Bournemouth.
Tel: Bournemouth 23570

STONEFIELD ELECTRONICS — STAND No. 40

Stonefield Electronics shall be exhibiting their full range of distributed digital and analog interfaces, compatible with the Commodore PET Computer.

Up to 50 channels in blocks of 10 digital and analog RS232/IEEE modules can be directly connected to the PET computer and sited up to a mile from the computer.

Stonefield, Omicron Electronis Limited
Denne Parade, Horsham, West Sussex, RH12 1DL
Tel: 0403 51366



TAYLOR WILSON — STAND No. 27

The Taylor-Wilson Multi-PET system is a set of switching units and interface cables which allows up to 8 PETs to access a single disk unit. The system is supplied complete with utility, demonstration and tutorial programmes on disk. Prices range from £498 to 2 PET System to £2090 for an 8 PET System.

Taylor Wilson Systems Limited
Oakfield House, Station Road, Dorridge, Solihull,
West Midlands B93 8HQ.
Tel: Knowle (056 45) 6192 Telex: 336513

TERMINAL SYSTEM SERVICES — STAND No. 29

TTS will be promoting their *Repair Services for Microsystems.* On display will be their Fast Fix PET controlled ATE repair facility.

Also the *PET-Telexmate,* the unit for preparing and editing telex tapes, it improves telex room throughput because tapes are prepared 'offline'. Facility exists to store tape data on to backing media.

Fully supported by TTS.

Terminal System Services Limited
King Street, Belper, Derby DE5 1PW
Tel: Belper (077 382) 7771 and 7772

WEGO — STAND No. 15

Wego Computers Limited are exhibiting two of their Commodore Approved Products.

The first of these is the Wego Sequential Switching Unit which is used to power up and down the PET and its peripheral devices in the correct sequence with the throw of one switch. Up to five devices can be handled by the unit and it is supplied complete with the necessary plugs at £59.55 plus VAT.

The second unit is the Wego Mark Sense Card Reader which plugs directly into the PET User Port and enables the PET to read pencilled marked cards. This device has many applications in both educational and business use for collecting data from many different points. The application we are demonstrating at the PET Show is the marking of multiple choice tests in schools.

Wego Computers Limited
22a High Street, Caterham, Surrey CR3
Tel: 0883 49235

WHYMARK **STAND No. 39**

Whymark Instruments, scientific, medical and industrial instrument manufacturers are exhibiting their range of DOT MATRIX PRINTERS from 40 to 120 Column capacity together with the new "801" 80/120 column intelligent printer.

Also exhibited at the show will be their PET controlled "Cash Drawer P.O.S. System" and PET controlled weighing systems together with the PET MASTER/SLAVE intercommunication technique recently developed.

Whymark Instruments Limited
6 Holmesdale Road, Reigate, Surrey RH2 0BQ.
Tel: 07372 21753 Telex: 945389

THE CHRISTOPHER NOLAN APPEAL

A project to obtain funds for the development of microcomputer based communication aids for the handicapped, will be represented at the PET Show.

An appeal was first launched after the Sunday Times told of the amazing story of 14-year-old Christopher Nolan, whose chief means of communication is via a PET microcomputer. With a special facility fitted on to the PET, Christopher, with a single muscle movement, was able to bring words onto the screen. Even more amazing was the fact that Christopher uses the system to write brilliant poetry and now spends more than 9 hours a day writing his poetry, attending to his school work and working on his latest project, a play.

Donations of over £25,000 have flooded in from all over the world from people wanting to help Christopher and others like him, and the success of the appeal prompted the organisers to set up what will be Europe's first Centre for the Development of Micro-electronics for the Handicapped.

Commodore have offered ten complete systems at half-price with free delivery and maintenance, together with a free stand for the Appeal Fund at the PET Show. Your own help, whether it be maintenance, support, equipment, or voluntarily given computer expertise as well as cash donations will ensure that many children like Christopher will have the opportunity to communicate with the outside world.

Donations and Correspondence to:

Lady Goulding
The Chairperson
Christopher Nolan Appeal
Central Remedial Clinic
Vernon Avenue, Clontarn, Dublin
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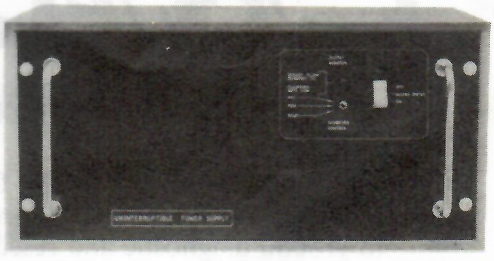

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Invitation

The PET in Education

A One Day Conference at
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Department of Engineering

TUESDAY 24th JUNE 1980

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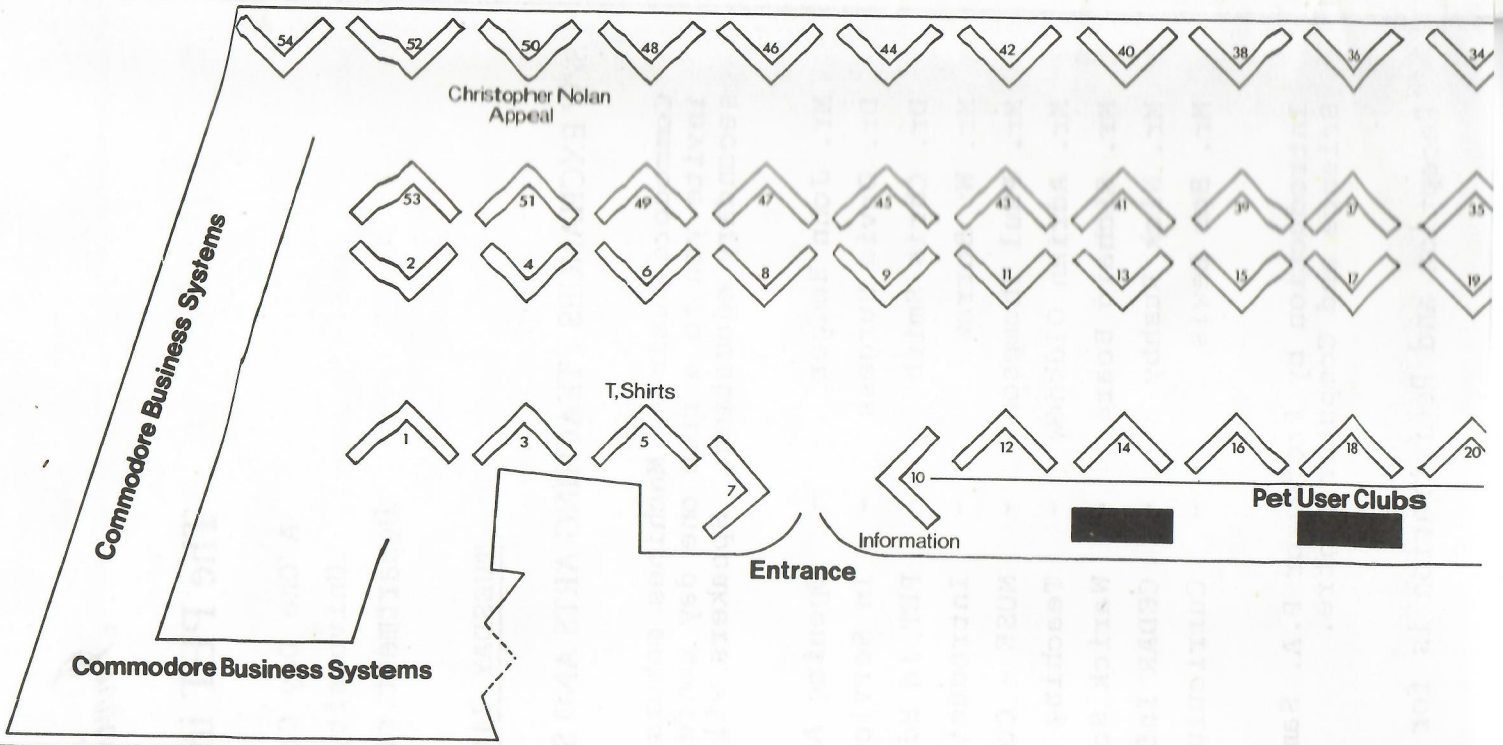
Commodore Business Machines makers of the PET microcomputer cordially invite you to a free one day conference on the role of the PET in secondary education. Speakers will include:-

Mr. John Hedger	-	Opening Address
Dr. David Burgess	-	In Service Training
Dr. Chris Smith	-	PET in Education Group
Mr. W. Burrow	-	Introducing Microcomputing into the School
Mr. Paul Thompson	-	MUSE - Commodore Users Group
Mr. Adrian Oldknow	-	Teaching with the PET
Mr. Richard Boare	-	Warick Science Simulations
Mr. Nick Rushby	-	CEDAR Information Project
Mr. Bob Lewis	-	Curriculum Development

Introduction by Professor P.A. Samet of the Department of Computer Science and Computer Centre.

Reception and Registration is for 9.30am.



Please Note: Only holders of this officia
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Name .....

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PET User YES/NO

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COMMODORE PUC MEMBER — OFFICIAL REGIS

The World's First Commodore PET Show
Seminar Programme

Friday 13th June		Saturday 14th June	
11.30 am	PET SHOW Opens	10.00 pm	PET SHOW Opens
12.00 am	PET as an IEEE-488 Bus Controller — *Spiro Omfalos*	10.30 am	PET in the Physics Lab *Bob Sparkes*
2.00 pm	PET in Psychiatry — *Dr. R. Ancill*	11.30 am	Teaching with PET — *Dr. G. Kenny*
2.00 pm	Teaching with PET — *Dr. G. Kenny*	12.30 pm	PET User Club Forum — *Commodore Staff*
4.00 pm	PET in the Physics Lab — *Bob Sparkes*	2.00 pm	PET and the Family Doctor — *Dr. D. Meldrum*
5.00 pm	PET in North America —*Jim Butterfield*	3.00 pm	PET in North America — *Jim Butterfield*
6.00 pm	PET User Club Forum — *Commodore Staff*		
8.00 pm	PET SHOW Closes	4.00 pm	PET SHOW Closes

Seminar tickets are available free of charge from the PET SHOW User Club Desk to Commodore PUC Members only.

Some notes about the Seminar Speakers.

Dr. Ray Ancill is the author of the patient interviewing package "Freud" which has been used in a study based at the Institute of Psychiatry in London.

Jim Butterfield is editor of "The First Book of Kim". He has contributed many articles to CPUCN, and is a frequent speaker at User Club Meetings in North America.

Dr. D. Meldrum is an Ipswich based family doctor with a practice of 5,000 patients. He is also the author of Medicom's Practice Monitor package.

Bob Sparkes is a teacher at Notre Dame College of Education in Glasgow and a CPUCN contributor.

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The 8050, a one megabyte, dual drive disk unit.

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CONTENTS

SECTION 1. The PET System Hardware

Basic elements — CPU — Memory — Input and Output — Video circuit — System memory map.

SECTION 2. The 6502 Microprocessor.

An overall view — The accumulator and arithmetic unit — Processor status register and flags — Branching and Jumps — Addressing modes — The Index register — The Stack register — Interrupts — Data modify instructions — Machine code on the PET — Hand assembling programs.

SECTION 3. The PET operating system.

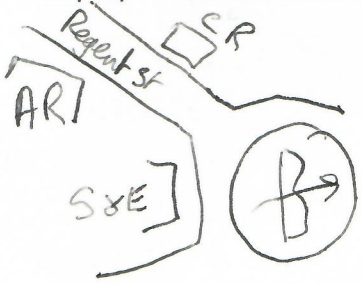
Routines from PET Basic — Variable memory map — Basic tokens — Program storage format — Overlays — Data storage — Numeric and string variables — Arrays — Garbage collection — Adding commands to Basic — Trace.

SECTION 4. The User Port.

User port connections — Video output circuit — Parallel user port — The 6522 VIA — User port memory map — Programming the user port — Handshaking on the 6522 — Serial I/O — I/O port expansion — Communication between processors — KIM to PET data handshaking — Summary of 6522 registers.

SECTION 5. The IEEE port and the 6520.

The 6520 and its registers — The PET keyboard — Modifying keyboard functions — Cassette unit — Merge — IEEE port — IEEE connections — IEEE signals — IEEE commands — IEEE to RS232 conversion — IEEE bus handshaking — The video display — Double density plotting.



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